

# ACO2 (D6D9) XP<sup>®</sup> Rabbit mAb



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**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications W, IP, IF-IC Endogenous	Species Cross-Reactivity* H, M, R, Hm, Mk	Molecular Wt. 85 kDa	Isotype Rabbit IgG**
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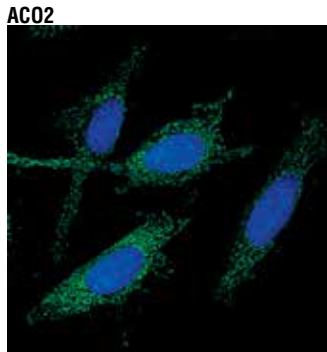
**Background:** Aconitase 2 (ACO2) catalyzes the conversion of citrate to isocitrate via cis-aconitate in the second step of the tricarboxylic acid (TCA) cycle (1,2). ACO2 is also an important regulator of iron homeostasis within cells (1-4). In addition, research studies have shown that this enzyme is deficient in the mitochondrial disease Friedreich's Ataxia (4,5).

**Specificity/Sensitivity:** ACO2 (D6D9) XP<sup>®</sup> Rabbit mAb recognizes endogenous levels of total ACO2 protein.

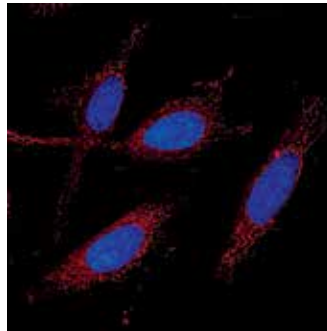
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly540 of human ACO2 protein.

**Background References:**

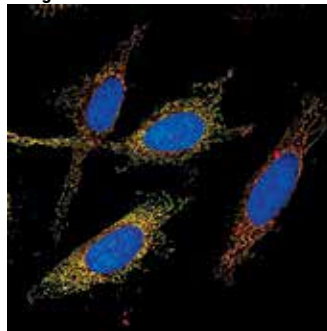
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- Mirel, D.B. et al. (1998) *Gene* 213, 205-18.
- Myers, C.R. et al. (2010) *Free Radic Biol Med* 49, 1903-15.
- Rötig, A. et al. (1997) *Nat Genet* 17, 215-7.
- Ye, H. and Rouault, T.A. (2010) *Biochemistry* 49, 4945-56.



**MitoTracker<sup>®</sup> Red CMXRos**



**Merge**



Confocal immunofluorescent analysis of HeLa cells using ACO2 (D6D9) XP<sup>®</sup> Rabbit mAb (green), showing colocalization with mitochondria that were labeled with MitoTracker<sup>®</sup> Red CMXRos (red). Blue pseudocolor = DRAQ5<sup>®</sup> #4084 (fluorescent DNA dye).

**Entrez-Gene ID #50**  
**Swiss-Prot Acc. #Q99798**

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

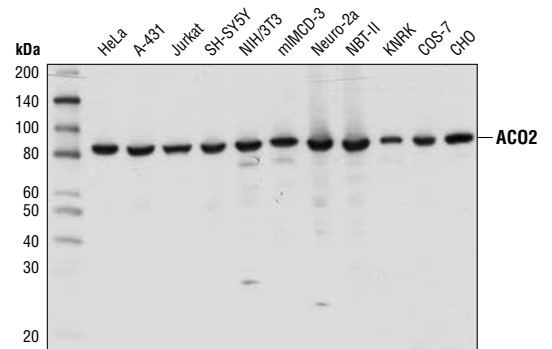
\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (IF-IC)	1:200

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.



Western blot analysis of extracts from various cell lines using ACO2 (D6D9) XP<sup>®</sup> Rabbit mAb.

DRAQ5<sup>®</sup> is a registered trademark of Biostatus Limited.

MitoTracker<sup>®</sup> Red is a registered trademark of Molecular Probes, Inc.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.